\$/122/62/000/004/005/006 D221/D302

AUTHORS:

Makarevich, B.K., Candidate of Technical Sciences, Novikov, N.I., Peliks, A.Ya., Abramzon, E.L., and

Sapozhkov, A.I., Engineers

TITLE:

A device for automatic measurement of diameters on

lathes

PERIODICAL: Vestnik mashinostroyeniya, no. 4, 1962, 73 - 77

TEXT: The investigations of EMIMS revealed that over 25 % of the auxiliary time is taken up by measurements. The device designed by TSNIITMASh uses a burnishing roller with an inductive transducer and a contactless revolution counter for the automatic measurement of components during their machining on lathes. This principle does not require additional setting when changing from one diameter to another. The rotor and stator are toothed, and the inductivity of the coil varies with the relative change of position between the teeth and cavities of the former. The shaft of the unit carries a wheel, which is brought into contact with the workpiece, so that their ratio determines the speed of rotation of the rotor. The out-Card 1/2

Automatic Measurement of the ...

23465 \$/115/61/000/006/001/006 E073/E535

is capable of generating 840 signals per revolution for a roller diameter of 210 mm. Experiments for determining the influence of speed of cutting on the accuracy were carried out at speeds of 20-250 m/min and these have shown that the scatter in the results does not exceed 0.03 mm for a roll pressure of 70 kg. The surface roughness of the components was within the limits of 10 to 80  $\mu$ . Use of cutting fluids had no influence on the accuracy. The experiments were carried out on a lathe with a centre height of 500 mm. Random errors are within the normal Gauss distribution, the mean square deviations being 21  $\mu$ . There are 2 figures.

Card 3/4

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Automatic Measurement of the ...

S/115/61/000/006/001/006 E073/E535

certain number of times in strict relation to the angle of rotation of the sensor. The revolution marker 4 emits command signals for starting and stopping the pulse counting. It consists of two coils with a permanent magnet, the magnetic circuit of which is closed by means of a cross-piece fitted onto the chuck of the machine tool. The cross-piece rotates together with the spindle and closes the magnetic circuit during each revolution. On closing the magnetic circuit a signal appears in the coil; this is transformed into a short duration pulse which is fed to the pulse counting circuit. The revolution marker gives one signal for each full revolution of the machined part. The sensor (Fig. 2) consists of two toothed rims 1 and 2 which are able to rotate independently of each other. In a ∏-shaped slot of the rim 2 a coil 3 is placed which is fed by direct current. The shaft 4 is hollow to allow for passage of the leads of the coil. The larger the diameter of the component the larger will be the angle by which the sensor will turn for a predetermined number of revolutions of the component and the larger will be the number of signals generated and counted. The equipment

Card 2/4

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E073/E535

AUTHORS:

Novikov, N.I. and Makarevich, B.K.

TITLE:

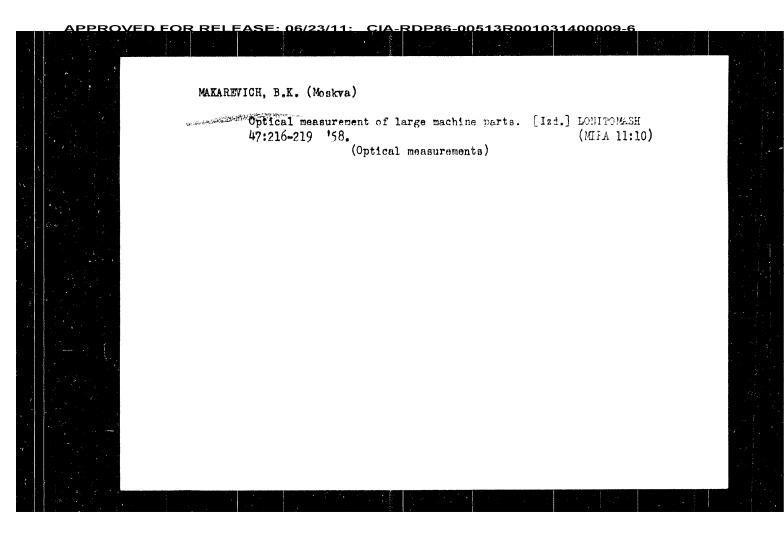
Automatic Measurement of the Dimensions During Turning

PERIODICAL: Izmeritel'naya tekhnika, 1961, No.6, pp.5-6

In TsNIITMASh a new device was developed for measuring the external diameters of components being machined (Engineers A. Ya. Peliks and E. L. Abramzon participated in the development work). A roller 1 (Fig.1) containing an inductive pick-up is pressed onto and driven by the component being machined 2, the diameter of which is to be measured. The roller is fixed onto the rear tool-rest 3 of the lathe and is made to approach the component to be measured by rotating the worm of the tool-rest. The pressure applied to the roller is controlled by means of a spring. Rotation of the roller generates in the sensor a.c. signals of a frequency depending on the frequency of rotation of the component, the diameter of the roller and the number of teeth of the inductive pick-up. These signals are converted into short duration voltage pulses which are fed into a pulse counter. The phase state of the signal changes during each revolution a

MAKAREVICH, B.K., kand.tekhn.nauk, NOVIKOV, N.I., inzh. Remote optical measurements of large marts. Vzaim.i tekh.izm v mashinostr.; mezhvuz.sbor.no.2:339-350 '60. (MIRA 13:8) (Optical measurements)

APPROVEI	Moscov. Tesatral'nyy machino-fasladratal'sky institutionrologii : mashinostryaniya  Nephcorya voprasy takhnologii tyazhalog mashinostryeniya, chast 2: Chribota  metallor remariyan tochrol' kachinosy, 2:. 2: Metal Outting pad Quality Control  turing Processes of Heavy Machinosy, 2:. 2: Metal Outting pad Quality Control	) Facetory, Raingia, 1904, 11)  [gradies: Goydarstrendy kom mandinestropmily, Teatral'n, gil i mandinestropmily, Teatral'n, gil i mandinestropmily, gil i Sobolers; Teatral	Out 1/2	COTEMICS. The book contains a summary of work conducted by the personnel of Institutes in the fitting of meeting statement of personnel of institutes in the fitting of meeting with the fitting and the contest continued on of personnel of meeting with maximum capacity of the meeting of depth, feed, and speed the development of methods the rough and small institutes and ultrasonle devices for first devection and measurement in, and wall intiduces. No personalities are meeticoed. References follow some of the chapters.	PART I. WORKING OF METLES BY CUTTING  I. Some Results of [Sessith] Nort in the Field of Methanics of the Notal-Catifus Process [Sorer, 8.3., Socior of Technical Sciences] 7		ols for the formation of format	Ch. I. Magnetic Flow Detection in Strictic for Pallity of Metal (Terrain, 18-11, Candidate of Federical Strictic for Paulity of Metal (Terrain, 137)  Ch. II. Ultraccale flow Detection and Metal metal of [Wall] Iniciness of Products [Termolor, 1.M., Explane), [Wall Englane), 1.M., Explane, 1	~**
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MAKAREVICH, B. K.

Makarevich, B. K. (Moscow). Optical Method of Measuring Large Parts p. 216

Interchangeability, Accuracy and Measuring Methods in Machine Building, Moscov, Mashgiz, 1958, 251 pp. (Sbornik Nauchno-tekh. obshch. mashinostroitel noy promyshlennosti, Leningradskoye oblast pravleniya, km. 47).

This collection of articles deals with the topics discussed at the 3rd Leningrad Sci. and Engineering Conference on Interchangeability, accuracy and Inspection Methods in Machine-building and Instrument-making, held 18-22 Mar 1957.

MAKAREVICH, B.K.

AID P - 4495

Subject

: USSR/Engineering

Card 1/1

Pub. 128 - 22/29

Authors

: Makarevich, B. K., Kand. Tech. Sci., Manager of the Measuring Laboratory of the Central Scientific Research Institute of Machine-Building Technology (TsNIITMASh) and S. P. Rodionov, Engineer, Chief of the Main Inspection of Production Quality.

Title

: Importance of Inspection Technology in Heavy Machine-Building.

Periodical

: Vest. mash., #4, p. 78-79, Ap 1956

Abstract

: The authors emphasize the importance not only of the proper inspection of the finished product but also of an analysis of the causes of technical flaws. They believe that Central Measuring Laboratories (TsIL) and Departments of Technical Inspection (OTK) in many leading machinebuilding plants must be increased, properly equipped, and professionally staffed.

Institution: None

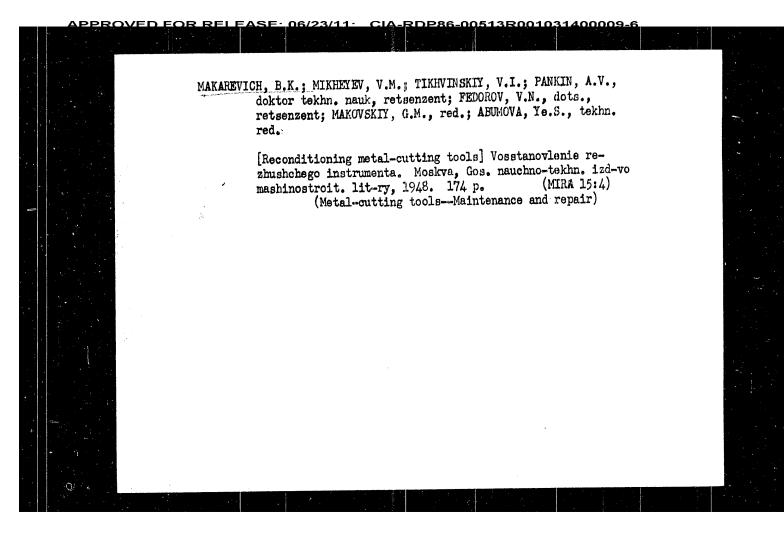
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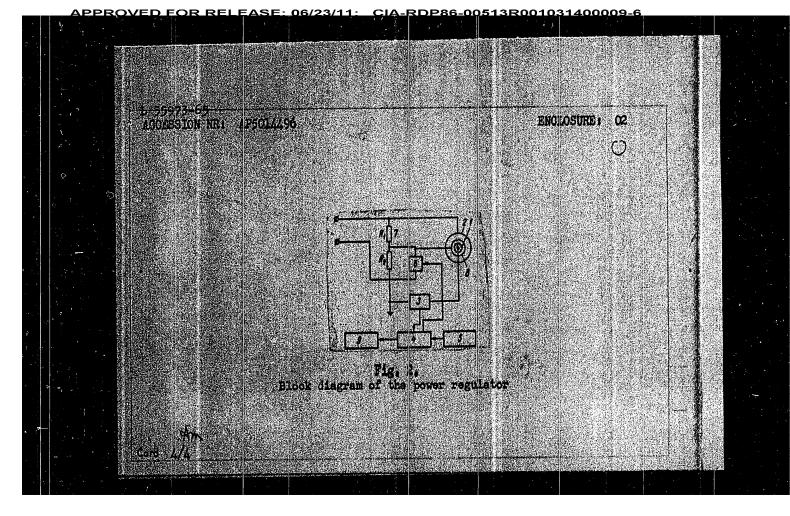
MKKMEVICH, E. K.

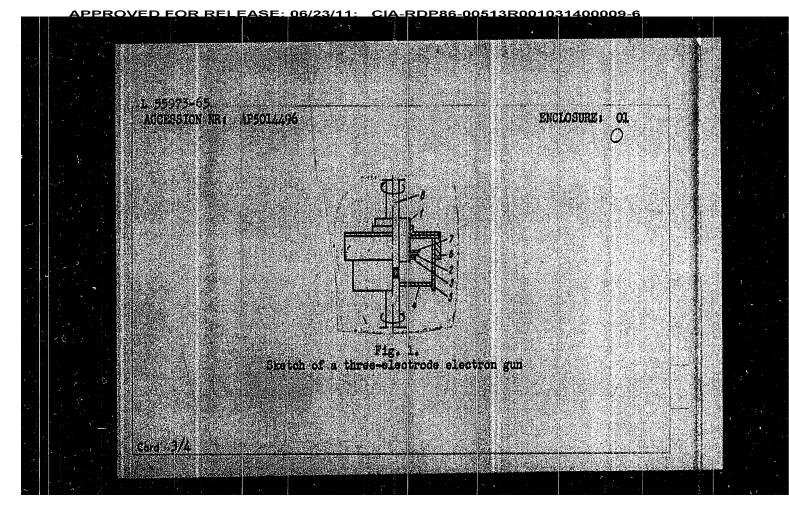
HAZAGWICH, E. K. - "Investigation of restands of controlling large-profile parts when morking them on Surving land boring Indeed, M.S. Min beave Marked Failding USAK. Central Sci Res Inst of Restanding and Section Deliving Officials.). (Discortations for a gree of Vandande of Rechnical Sciences.)

S0: Knizhnave Intends!, No M. 2: Noresher 1979. Necess.

MAKAREVICE, P. K. MACHINE TOOLS Instruments for nessuring epiindrical parts in motion, Stan. i lastr., is a . 6, 1991. MONTRLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, November 1952. UNCLASSIFIED.







1.55973-65

AP5014496 ACCESSION NRA

reducing the tork function of the heater. Diaphragm (2) protects the accelerating electrode (3) from the electrons which are directed in a beam to the molten zone. A melting temperature gradient can be created by focusing the beam through the movements of cylinder (1) and the disphragm (4). The addelerator electrode also acts as an anode current modulator and gives a practically inertia-free regulation of the thermal condition. In the power stabilizer (see Fig. 2 on the Enclosure) the specimen (1) is the anode and the filament (2) the cathode. The anode current passing through the current collector (3) creates a voltage in the comparison unit (4), where a signal also arrives from the adjustment unit (5). The adjusting signal is sent from (4) to the regulating cascade (6), changing the resistance. This changes the voltage distribution in the voltage divider (7) and the voltage in the control electrode (8). The anode output characteristic is maintained rather rigidly by using a high-voltage x-ray transformer of 2 kw power, with a bridge of four KRM-150 kenetrons, as the anode voltage source. The gun operation is recorded by an electronic potentiometer (9). Orig. art. has: 2 figures. ASSOCIATION: Institut fiziki tverdogo tela i poluprovodnikov, Akademii nauk BSSR (Institute of Physics of Solids and Semiconductors, Academy of Sciences, BSSR)

Submitted: 00

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SUB CODE: EC. IM

NO REF SOVE OF 2 Card 2/<u>L</u>

OTHERE: 003

ACTIONS: Rayman, 1, Yu., Makareyioh, A. I.,

TITLE: An electron gun for sons refining althout a crucible

SCURCE: Zarodakaya laboratoriya, v. 31, no. 6, 1965, 748-749

TOPIO TAUS: Steetyon gun, kons refining, power control, electron beam control, nefting, temperature gradient / KRM 150 kanotron

ABSTRAUT: A times-electrode electron gun was developed for zone refining. The addition of the third electrode (an accelerating one) eliminated the sarlier probalem of contaminating the specime and conting the gun filament, thereby speeding its burnout. The electron gun was fer lower on the modeled on a rubber membrane. The disphragm (2) is fathered to the movable oplinder (1). Below the disphragm is an annular accelerating electrode (3). The lower disphragm (4) moves in respect to the oplinder (5). The cathede unit (make from tantolum) is fastared to insulators by a collar (6). The filament of the heater (7) is shielded from the specimen and (8) on one side by the disphragm (2) and on the other by the disphragm (4). The accelerating electrode is fed this kr, thereby Card [7].

L 19361-66

ACCESSION NR: AP5009106

orientation.(111)-[110], (110)-[111], (100)-[110], etc. were obtained. Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN BSSR (Physicotechnical Institute AN BSSR)

SUBMITTED: 10Feb64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 005 OTHER: 001

EWT(m)/T/EWP(t) IJP(c) JD L 19361-66

ACCESSION NR: AP5009106

\$/0250/65/009/002/0094/0096 /

AUTHOR: Makarevich, A. I.

TITLE: Preparation of aluminum single crystals by accumulative recrystallization SOURCE: AN BSSR. Doklady, v. 9, no. 2, 1965, 94-96

TOPIC TAGS: aluminum single crystal, accumulative recrystallization, aluminum recrystallization

ABSTRACT: The starting material used was sheet aluminum of 99.5% purity and 1 mm thick subjected to rolling and annealed for 5 hr at 450°C in order to produce a preferred grain orientation in the completely recrystallized specimen. To accelerate the accumulative recrystallization, the specimens were subjected to a uniform 1.5-2.0% extension along their entire length. The specimens were then annealed at 600°C, and steps were taken to keep the number of "seeds" arising in the metal to a minimum. A special device was used to insure a smooth and uniform immersion of the specimens in a salt melt (50% NaNO3 + 50% KNO3) maintained at 600°C. Depending upon the mechanical and thermal treatment, the optimum immersion rate was 18 to 30 mm/hr. Aluminum single crystals measuring 0.5 × 4 × 150 and 0.2 × 4 × 150 mm with the

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The critical web thickness,  $h_{\nu_1, \bar{\nu}_1}$ , is that which will ensure that the temperature in the interior layers of the web at the final moment of the forging operation is not appreciably lower than the initial temperature of the blank. Based on the analysis of formula (14), a formula for  $h_{\kappa\tau\nu\ell}$  was derived in the form:

$$h_{KS117} = 11.2 \sqrt{\lambda T/c\gamma} \qquad (16),$$

where \(\lambda\) is the heat-conductivity coefficient,

e specific heat and

γ the density of the web material.

There are 12 figures and 14 Soviet-bloc references.

Card 9/12

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practical importance. An approximate formula was derived by the present authors, from which the temperature,  $\{\psi_{ij}\}$ , of the central layer of the web at any stage of a forging operation can be calculated. The formula has the form of:

$$\Theta_{LL_1} = 1 - \frac{1}{1 + K_{\varepsilon}} \left( \text{erfc} \frac{H}{4\sqrt{a_1 \tau}} + \text{erfc} \frac{h_{\chi}}{4\sqrt{a_1 \tau}} \right)$$
 (14)

where  $K_{\varepsilon}$  is a coefficient characterising the heat-conductivity of the web relative to the punch material,

H is the thickness of the blank,

time of contact between the web and the punch.

 $h_{\mathbf{x}}$  the web thickness after time  $\sim$  and

a, thermal diffusivity of the web material.

The validity of this formula was confirmed by experiment.

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in its central portion. It is for this reason that so-called "combined" forging is advocated by some workers. In this process, side-by-side with forging of the main internally-webbed component, another component situated in the central portion of the web is stamped. As a result, metal consumption is reduced because the internal part of the web is utilized and the secondary forging has no flash, the production capacity of the press is increased and manpower requirements are reduced.

10) The maximum  $o_n$  increases rapidly with decreasing  $h/d_{u_1}$  ratio, and the optimum diameter of the web corresponds to  $h/d_{u_1} = 0.2 - 0.1$ .

11) Experiments described in the present paper were conducted at room temperatures. In industrial practice, the temperature of the web decreases rapidly with a corresponding increase in the temperature of the punches. With decreasing temperature, the resistance of metal to deformation increases and higher forging pressure are required whereby the life of the instrument is shortened. Since the flow of metal is confined mainly to the internal layers of the web, the temperature of this region is of Card 7/12

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resultant from the use of dies with the flat face of the punch roughly machined, polished and lubricated (Curves 1-3),

respectively.

8) High normal stresses in the central portion of the web cause a distortion of the punch and are the main cause of its excessive wear. The maximum value of on for any given case can be calculated from formula (4). If this value is equated to the maximum stress, profit to which the punch can be subjected without distoring, a formula for the minimum permissible web thickness is obtained in the form:

$$h = \frac{2\mu r_{\mathbf{u}_0} \delta}{\left(\frac{p_{\mathbf{A}0}\mathbf{n}}{p_{\mathbf{T}}} - 1.2\right) \delta - (2\mu B + 4.8)}$$
(8).

9) A reduction of  $\sigma_n'$  and a correspondingly longer life of the die can be attained by increasing the thickness of the web Card 6/12

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S/571/60/000/006/002/011 E193/E383

$$\sigma_{\rm n} = p_{\rm T} \left[ \frac{2\mu B + 4.8}{\delta} + 1.2 + \frac{2\mu}{h} (r_{\rm U} - r) \right]$$
 (4)

where  $\mu$  is the friction coefficient,

 $\mathbf{p}_{\mathrm{T}}$  is the yield strength of the metal,

B is the thickness of the rim,

δ the flash clearance,

h web thickness and

ru web radius.

The accuracy of this formula is demonstrated in Fig. 5, showing the calculated (broken curve) and experimentally-determined (continuous curve) distribution of  $\sigma_n$  for a die with

h = 2 mm and  $r_{\mu} = 15 \text{ mm}$ .

7) The magnitude and distribution of  $\sigma_n'$  depends on contact friction, as determined by the surface condition of the die. This is illustrated in Fig. 4, showing the distribution of  $v_n$ Card 5/12

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pressed against a soft steel disc placed at the bottom of each hole. The maximum normal stress (i.e. that set up in the final stage of the forging operation) was determined from the size of the impression made by the pointed plugs in the steel discs. The results are reproduced in Fig. 3, where  $\sigma_{n}^{\prime}$  (kg/mm<sup>2</sup>) is plotted against the distance (mm) from the die axis, the cross-section of the die being shown under each graph. The flash clearance in all the experiments was maintained constant at 2.2 mm. The curves in Fig. 3a represent results obtained for a die with a punch diameter du = 40 mm, used to produce forgings with web thickness, h, ranging from 20 mm (bottom curve) to 2 mm (top curve); the curves in Fig. 36 represent results obtained for  $d_{\mu_i} = 30 \text{ mm}$  and h ranging from 15 - 2 mm -6) The magnitude of  $o_n$  at any point at a distance r from the die axis can be calculated from a formula derived by the present authors:

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(rim ) of the forging. 3) The flow of metal is confined mainly to the inner layers of the web. Consequently, wear of the punch due to movement of the metal relative to the tool surface is insignificant. 4) In the absence of work-hardening, the specific contact friction force, f . increases initially with increasing normal stress, or , and then reaches a constant limiting value of  $f_{max} = 0.5 \ p_{T}$ , where  $p_{T}$  is the yield strength of the alloying. This is illustrated in Fig. 2, where  $f_{max} = 0.5 \ p_{T} = 0.5 \ p_{T}$ against on (kg/mm<sup>2</sup>), Curves 1 and 2 in graph A relating to lead and tin, Curves 1, 2, 3 in graph & relating to aluminium, copper and brass, respectively. 5) Non-uniform distribution of stresses normal to the die surface has been established. A, so-called, "indentation" method was used for this purpose. It consisted of drilling a number of blind holes in the working surface of the die in which hard alloy plugs were subsequently inserted with one end flush with the die surface and the other end, tapered to a point,

Card 3/12

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deformation and flow of the metal, contact friction, stress distribution and heat-transfer during the process studied with a view to developing a method of determining the optimum web thickness. The first chapters of the article are devoted to an analysis of results of earlier studies (Ref. 6 - A.I. Makarevich - Sb. nauchnykh trudov FTI AN BSSR, no. 4 izd. AN BSSR, 1958) of metal flow in internally-webbed forgings which are correlated with the experimental results reported in the remaining part of the paper. The conclusions reached can be summarised as follows.

1) A characteristic feature of forging of internally-webbed components is non-uniform distribution of the stress and deformation, both in the web and at the mouth of the flash clearance (gutter). The general law governing the flow of metal in round, symmetrical forgings apply also to internally-webbed rings.

2) In calculating the forging force, pressure due to deformation of metal between the top and bottom punches (fullers') has to be taken into account in addition to that set up in the annular part Card 2/12

## S/571/60/000/006/002/011 E193/E383

AUTHORS: Severdenko, V.P. and Makarevich, A.I.

TITLE: Stamping of internally-webbed forgings

SOURCE: Akademiya navuk Belaruskay SSR. Fiziko-tekhnicheskiy

institut. Sbornik nauchnykh trudov. no. 6. Minsk,

1960. 8 - 33

TEXT: An internally-webbed ring (driving flange) is one of the most common shapes produced by drop-forging. Since the web accounts for the bulk of material used up in the fabrication of components of this type, the general trend is to reduce its thickness. A decrease in the web thickness, however, can be attained only at the price of increased forging pressure, intensified tool wear and an increased proportion of faulty forgings. Since no fundamental studies of drop-forging of internally-webbed components have been reported in the literature, the optimum web thickness is usually calculated from empirical formulae, in which the geometry of the forgings only is taken into account. Hence the present investigation - whose object was to relate the geometry of the part under consideration to Card 1/12

SOV/124-59-9-10634

Translation from: Referativnyy zhurnal, Mekhanika, 1959, Nr 9, p 147 (USSR)

AUTHOR:

Makarevich, A.I.

TITLE:

The Mean Metal Flow Pressure Within a Stamp Hollow of Ring  $\overline{\text{Form}}$ 

FERIODICAL:

Sb. nauchn. tr. Fiz.-tekhn. in-t AS BSSR, 1958, Nr 4, pp 112-123

ABSTRACT:

The author considers the plastic stress state arising at the extrusion of a metal in a ring-like stamp. It is presumed that the direction of the main normal stresses coincides with the direction of the press strain. On the basis of the presumption mentioned, calculation formulae for the stresses and strains are derived. Test data from extrusion of lead are presented.

A.D. Tomlenov

SOV-137-58-12-24457

Translation from: Referativnyy zhurnal. Metallurgiya, 1958. Nr 12, p 72 (USSR)

Makarevich, A. I. AUTHOR:

Metal Flow in an Annular Trimming Die (Techeniye metalla v obloynom TITLE:

shtampe kolitsevogo tipa)

PERIODICAL: Sb. nauchn. tr. fiz.-tekhn. in-t AN BSSR, 1958, Vol 4, pp 105-111

ABSTRACT: A coordinate grid is applied in experimental stamping of Pb samples to

determine the nature of the metal (Me) flow and the distribution of deformations (D) throughout the section of a forging. It is established that the D of the Me in the web is analogous to that of D in free upsetting. Displacement of the stamped Me along the contact surface of the punch is negligible and wear by abrasion is small in practice. A more pronounced slippage along the ends of the punch sets in when the web approximates the height of the fin. A punch with convex face makes

for faster slippage of Me along the contact surface.

M. Ts.

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 72 (USSR)

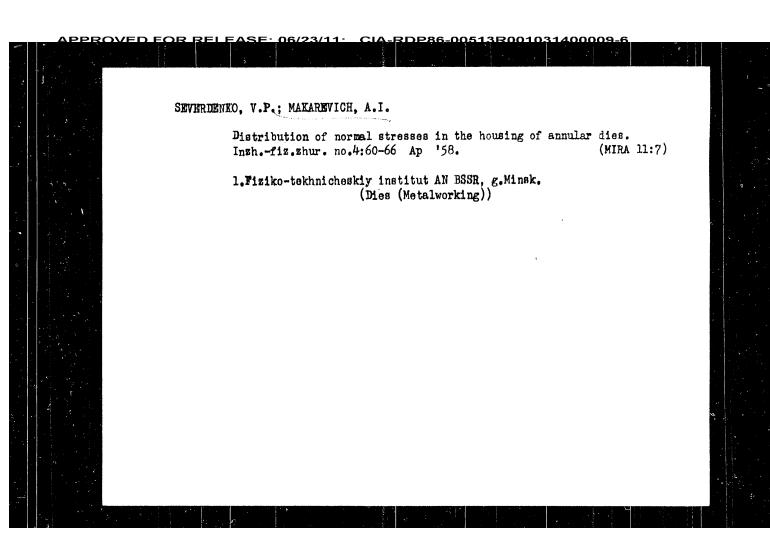
AUTHOR: Makarevich, A. I.

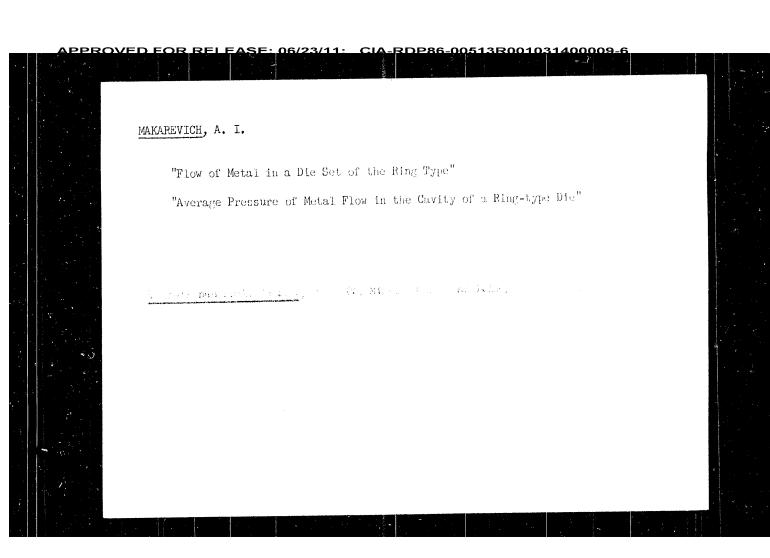
TITLE: Certain Problems in the Forming of Forgings with Interior Webs

(Nekotoryye voprosy shtampovki pokovok s vnutrenney peremychkoy)

PERIODICAL: V sb.: Materialy Konferentsu molodykh uchenykh AN BSSR. Minsk, 1958, pp 84-86

ABSTRACT: Ref. RzhMet. 1958, Nr 12, abstract 24457





MAKAMETYICH, A. I.: Master Tech Sci (diss) -- "Investigation of the process of stamping forgings with internal cross-bracing". Minsk, 1959. 16 mp (Acad Sci Beloruss SSR, Physicotech Inst), 150 copies (KL, No 2, 1959, 122)

ACC NR: AP6017412

at the maximum permissible temperature, the use of this wire is not recommended for the electrothermal pretensioning method. If 5-mm wire must be heated to more than 4,00° for the required degree of tensioning, the reduction in the strength characteristics of the wire must be taken into consideration. The electrical heating should be done at a rate of 15-30°/sec. A safety factor of 50% should be allowed for accidental overheating. Orig. art. has: 5 figures and 3 tables. [JPRS]

SUB CODE: 11, 20 / SUEM DATE: none

## L 2709**0-**66 EWT(m)

ACC NR: AP6017412

SOURCE CODE: UR/0097/65/000/010/0015/0018

AUTHOR: Gorodnitskiy, F. M. (Candidate of technical sciences); Yukhvets, I. A. (Candidate of technical sciences); Korenev, K. I. (Engineer); Riskind, B. Ya. (Engineer); Shumeyko, R. I. (Engineer); Livchak, T. N. (Engineer); Litviruv, A. A. (Engineer); Makarevich, A. A. (Engineer)

ORG: none

TITLE: Properties of high-strength reinforcement material subjected to electrical

SOURCE: Beton i zhelezobeton, no. 10, 1965, 15-18

TOPIC TAGS: concrete, wire, solid mechanical property

ABSTRACT: Specimens of high-strength reinforcing wire for concrete were subjected to mechanical tests to determine the effects of electrothermal prestressing on the strength of reinforcing materials. The experimental procedure is described and the mechanical characteristics, chemical composition and geometric shape of the various wires studied are given. It is found that the optimum pretensioning temperature (i.e. the highest temperature which does not reduce the ultimate strength of the wire) is 400°C for a 5-mm wire and 350°C for a 3-mm wire. These temperatures meet the standard requirements for permanent elongation of wire which is not low-temperature annealed during manufacture. Since 3-mm wire is not sufficiently tensioned

UDC: 666.982.4

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PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R00108140000

L 24510-66 EWT(m)/EWP(w)/T/EWP(t) IJP(c) EM/JD

ACC NR: AP6007700

SOURCE CODE: UR/0413/66/000/003/0080/0080

AUTHOR: Makarevich, A. A.

TITLE: Determination of changes in physical and mechanical properties of metals. Class 42, No. 178547

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 80

TOPIC TAGS: metal property, metal physical property, metal mechanical property

ABSTRACT An Author Certificate has been issued for a method of determining changes in physical and mechanical properties of metals under stress and at various temperatures. In order to take readings of mechanical properties while heating or cooling the metal, tests are conducted in cycles, during each of which the load on the specimen remains constant, while the temperature is measured according to a given law and the cycles are distinguished by the amount of the load and the specimen. [LD]

SUB CODE: 11/ SUBM DATE: 14May63/

MAKAREVICH, A.A., kand.tekhn.nauk Special problems in determining the steel area under eccentric compression and tension. Bet. i zhel.-bet.no.9:433-434 5'60. (MIRA 13:9) (Strains and stresses)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

124-57-2-2416

Translation from: Referationyy zhurnal, Mekhanika, 1957, Nr 2, p 129 (USSR)

AUTHOR: Makarevich, A. A.

TITLE: A Method for the Determination of the Dimensions of a Rectangu-

lar Cross Section for Eccentrically Compressed Concrete Beams (Metodika opredeleniya ruzmerov pryamougol nogo poperechnogo secheniya vnetsentrennoszhatykh zhelezobetonnykh elementov)

PERIODICAL: Tr. Novosibir. inzh. stroit. insta, 1955, Vol 5, pp 97 408

ABSTRACT: Bibliographic entry

1. Beams--Properties 2. Beams--Measurement 3. Mathematics

Card 1/1

## MAKAREVich

POLAND/General Biology - Genetics

B-4

Abs Jour

: Referat Zhurn- Biol. No 16, 25 Aug 1957, 68125

Author

Makarevich

Title

Genetics "Behind the Iron Curtain".

Orig Pub

: Kosmos, 1956, A5, No 3, 288-294

Abstract

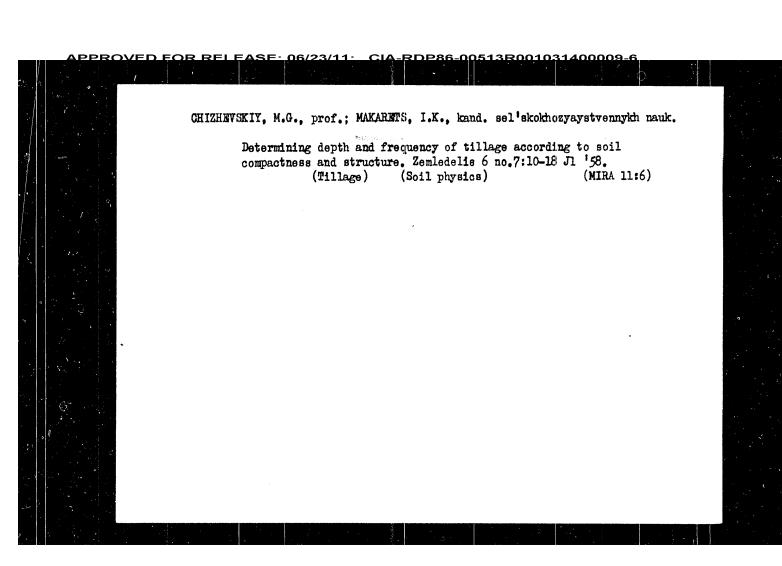
An account of the report of R. Goldschmidt at the 9th international genetic congress in 1953, in which he regards a series of genetic problems (compensation doses of genes, determination of sex, pseudoallelism and others) contrasting his own dynamic-relativist approach to them with the static-statistical. The author considers that the report of Goldshmidt reflects the struggle of the more advanced currents in genetics as against idealistic metaphysical concepts, and that one cannot regard all Western geneti-

cists wholesale as "formalistic".

Card 1/1

- 5 -

MAKARETS, I.K., kand. sel'skokhoz. nauk Soil Indices characterizing the comparability of data obtained in the testing of agricultural machinery. Trudy VISKHOMa no.32:67.076 162. (MIRA 1801) Direct and indirect methods for determining the specific resistance of soils during plowing. Ibid.:77-83



COUNTRY : Soil Science. Soil Genesis and Geography. CATEGORI MBS. JOUR. : EZhBiol., No. 5, 1959, No. 20011 AUTHOR : Chizhevskiy, M.G.; Makarets, I.K. ! Moscow Agricultural Acad.imoni K.A. Timirvazov HIST. : The Single Process of Soil Formation (A Sorics TITLE of Considerations). ORIG. PUB. : Izv. Timiryazevsk, s. hh. skad., 1958, No. 2, 95-108 ABSTRACT : Consideration is given to V.R. Vil'yam's general theory of soil genesis and, in particular, to the time factor in sail formation. The overall direction of the soil forming processes is determined, in the authors' opinion, by the effect of many factors, not merely the evolution of the biological ingredients and climatic changes. CARD: 1/1

MAKARETS, I.K., mladshiy nauchnyy sotrudnik, kand. nauk. Haffect of soil density and aggregates on the water capacity of soil. Tokl. TSKhA no.28:144-150 57. (MIRA 11:4) (Soil moisture) (Soil physics)

APPROVED FOR RELEASE: 06/23/11: CIA-RDPBG-00513R001031400009-6

MAKARETS, I.K., kand.sel'ekokhozyaystvennykh nauk.

Effect of organic matter on the degree of soil solonization in the presence of calcium carbonate [with summary in English]. Izv. TSKhA no.5:43-62 '57. (MIRA 11:1) (Solonetz soils) (Organic matter) (Calcium carbonate)

CHIZEEVSKIY, M.G., doktor sel<sup>9</sup> skokhozyaystvennykh nau, professor, MAKARETS,

I.K., kandidat sel<sup>9</sup> skokhozyaystvennykh nauk.

Nethods of plowing Solunetz solls in the trans-Volga region, Izv.

TSkha no.3:23-34 156.

(Volga Valley-Solonetz solls) (Plowing)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

MAKARETS, I. K.

"The Meliorative Role of an Organic Substance in the Cultivation of Saline Soils Under Irrigation Conditions." Cand Agr Sei, Moscow Order of Lenin Agricultural Acad imeni K. A. Timiryazev, Moscow, 1954. (KL, No 3, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13) SO: Sum. No. 598, 29 Jul 55 APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

## HUNGARY

MAKARESZ, Denes, Dr. HABON, Gyorgy, Dr; City Ambulant Service, Surgical Department (Varosi Rendelointezet, Sebeszeti Osztaly), Pecs.

"Statistical Data on the Number of Traumatological Cases Seen in the Surgical Outpatient Service."

Budapest, Magyar Traumatologia, Orthopaedia es Helyreallito Sebeszet, Vol IX, No 2, 1966, pages 142-147.

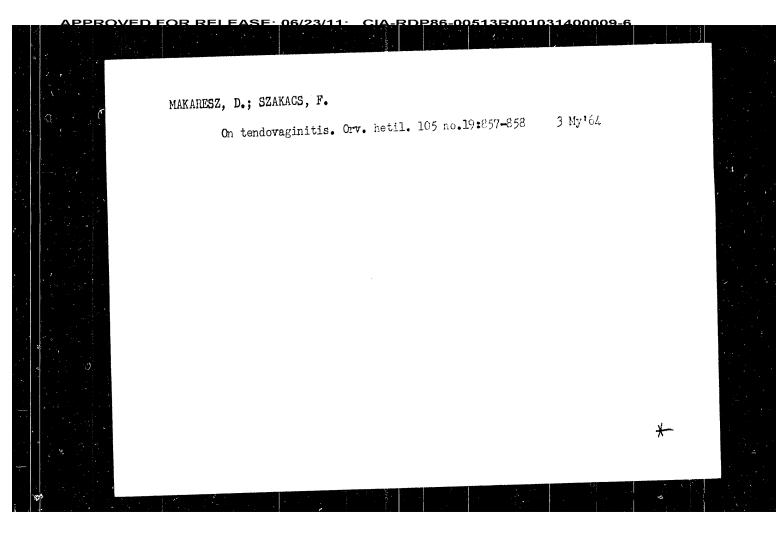
Abstract: [Authors' English summary modified] The patient material seen at the traumatological service in the surgical department, within the 29 physician-hours per day provided, over a one-year period is analyzed. Of the total of 2981 cases, there were 48 per cent wounds and 34 per cent fractures. The organization of surgical outpatient clinics is discussed in detail and the need to set certain times aside for surgery is emphasized. The age, sex and occupational distribution of the patients is also discussed. 8 Eastern European, 1 Western references.

1/1

- 219 -

Card:

1/1



MAKARESZ, Denes, dr.; BOROS, Tibor, dr.; JUTASI, Irma, dr. Frequency of peritenonitis in the industrial establishments of Pecs. Munkavedelem 10 no.7/9:30-32 '64. 1. Division of Surgery of the Pecs City Medical Clinic.

MAKARESZ, Denes, dr. Recent data on familial insuloma. Orv. hetil. 102 no.15:702-703 á 9 Ap 161. 1. Pecsi Orvostudomanyi Egyetem, I Sebeszeti Klinika. (ISLET CELL TUMOR genetics)

MAKARKSZ, Denes, Dr. Familial occurrence of insuloma. Orv. hetil. 100 no.9:333-336 1 Mar 59. 1. A Pecsi Orvostudomanyi Egyetem I. sz. Sebeszeti Klinikajanak (igazgato: Schmidt Lajos dr. egyetemi tanar) kozlemenye. (ISIANDS OF LANGERHAMS, neoplasms insuloma in siblings, case reports (Hun))

MAKARESZ, D.

Capillary thermodiffusion. Acta physicl. bung. 6 no.2-3:125-133 1954.

1. Biophysikalisches Institut der Medizinischen Universitat, Pecs.
(DIFFUSION capillary thermodiffusion)
(CAPILLARIES capillary thermodiffusion)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

MAKARÉSZ D.

Biophys. Inst., med. Umiv., Pecs. \*Konzentrationsveranderung durch Thermodiffusion wahrend der Stromung in den Kapillaren. Contration changes due to thermal diffusion during flow through the capillaries ACTA PHYSIOL. ACAD. SCIENT. HUNG. (Budapest) 1954, 5/suppl. (73-74)

SO: EXCERPTA MEDICA - Section II, Vol. 7, No. 10

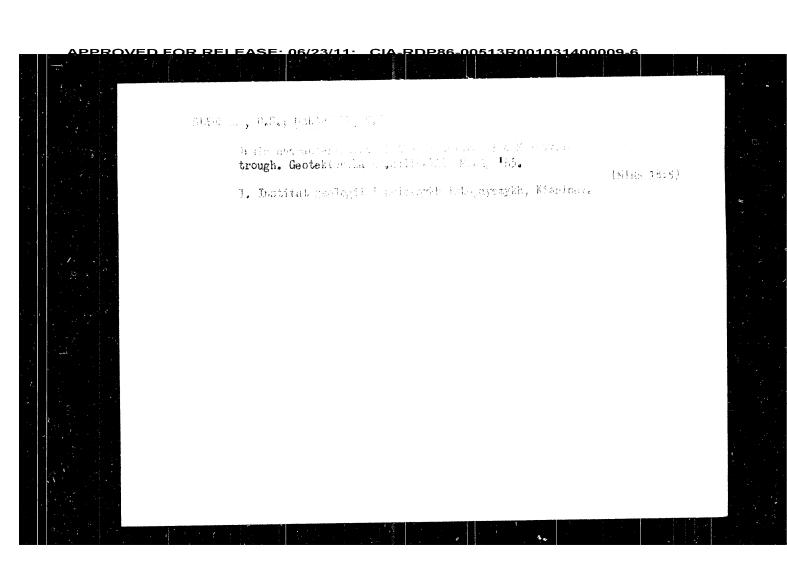
BOBRINSKIY, V.M.; BUKATCHUK, P.D., BURGELYA, N.K.; DRUMYA, A.V.;
KAPTSAN, V.Kh.; MAKARESKU, V.S.; NEVRYANSKIY, D.G.;
NEGADAYEV-NIKONOV, K.N.; PEPES, F.S.; ROLANOV, L.F.;
ROSHKA, V.Kh.; SAFAROV, E.I.; SAYANOV, V.S.; SOBETSKIY,

LUTOKHIN, I., red.

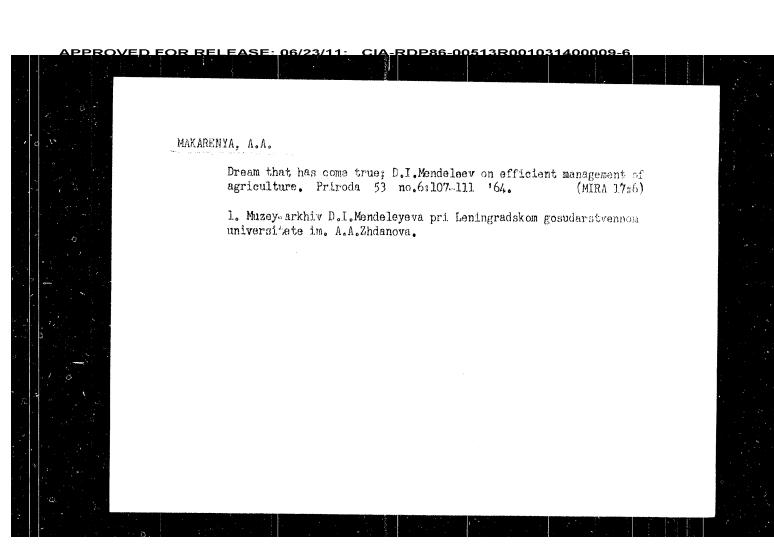
[Paleogeography of Moldavia] Paleogeografiia Moldavii. Kartia, moldoveniaske, 1965. 145 p. (MIRA 18:9)

V.A.: TKACHUK, V.A.; KHUBKA, A.N.; EDEL'SHTEYN, A.Ya.;

1. Otdel palenotologii i stratigrafii AN Moldavskoy SSR (for Negadayev-Nikonov, Roshka, Romanov, Sobetskiy, Khubka).
2. Institut geologii i poleznykh iskopayemykh Gosudarstvennogo geologicheskogo komiteta SSSR (for Bobrinskiy, Burgelya, Nevryanskiy, Tkachuk, Edel'shteyn). 3. Opornaya seysmostantsiya AN Moldavskoy SSR (for Drumya). 4. Gosudarstvennyy proizvodstvennyy geologicheskiy Komitet Moldavskoy SSR (for Bukatchuk, Kaptsan, Safarov).



MAKARENYA, Aleksandr Aleksandrovich; PCHELINTSEVA, G.M., red. [D.I.Mendeleyev on the radioactivity and complexity of elements] Mendeleev o radioaktivnosti i slozhnosti elementov. Moskva, Atomizdat, 1965. 102 p. (MIRA 18:9)



MAKARENYA, A.A. Clemens Winkler and the Russian Physicochemical Society. Zhur. VKHO 8 no.5:567 '63, (MIRA 17:1) MAKARENEYA, A.A.; MOGILEV, M.Ye.; KROTIKOV, V.A.; BALICHEVA, T.G.;
ARIYA, S.M., otv. red.; PIASTRO, V.D., red.; YELIZAROVA,
N.A., tekhn. red.

[How to prepare for entrance examinations for institutions
of higher learning; chemistry] Kak gotovitisia k priemnym
ekzamenam v vuz; khimita. Izd.2. Leningrad. 153 p.

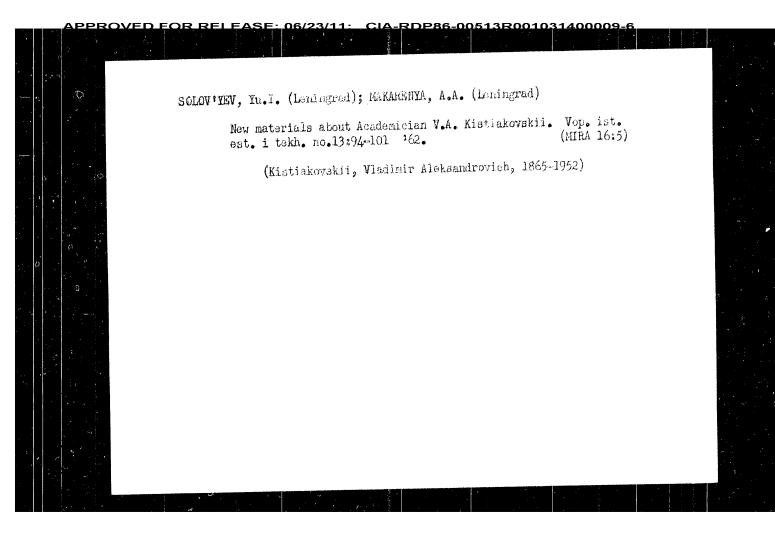
1. Leningrad. Universitet.

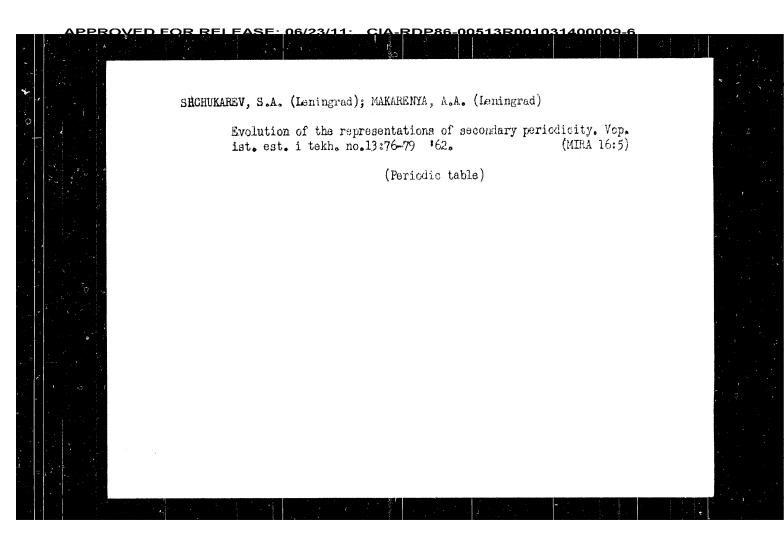
MAKARENYA, Aleksandr Aleksandrovich; BABUSHKINA, S.I., red.;

WLASOVA, N.A., tekhn. red.

[D.I.Mendeleyev on the radioactivity and complexity of the elements] D.I.Mendeleev o radioaktivnosti i slozhnosti elementov. Moskva, Gosatomizdat, 1963. 64 p. (MIRA 16:4)

(Periodic law) (Radioactivity)





8/063/62/007/005/001/006 A057/A126 Conference on the .... (Ivanovo), S.A. Shchukarev (Leningrad), Morozov (Moscow), Ya.I. Gerasimov (Moscow), E.I. Krech (Khar kov), L.S. Lilich (Leningrad), and others. Card 4/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

Conference on the ...

S/063/62/007/005/001/006 A057/A126

ing rare elements. The coworkers of the Institut khimii silikatov (Institute of Silicate Chemistry) S.K. Dubrovo, G.S. Tsekhomskaya, Z.D. Alekseyeva, and Yu.A. Shmidt reported on new experimental data for rubidium, cesium, and halogensilicate glasses, while N.A. Toropov, R.N. Galakhov, and I.A. Bondar' presented the paper "Isomorphism in silicate systems with oxides of rare-earth elements". Coworkers of the kafedra fizicheskoy khimii LGU (Chair of Physical Chemistry of the Leningrad State University) B.P. Nikol'skiy, M.M. Shults, N.V. Peshekhonova. A.I. Parfenov, O.V. Mashchurin, V.S. Bobrov, and A.A. Belyustin discussed problems of electrode properties of glasses of ternary systems. Several coworkers of the Leningradskiy alyuminiyevo-magniyevyy institut (Leningrad Aluminum-Magnesium Institute) reported on the preparation and purification of TiCl4. Ya.I. Gerasimov, and G.N. Rezukhina, et al., reported upon thermodynamic investigations of alloys. oxides, and salts containing rare elements. Several papers dedicated to the separation and determination of rare elements were presented by the kafedra analiticheskoy khimii LGU (Chair of Analytical Chemistry of the Leningrad State University). M.N. Gordeyeva presented the paper "Chromatographic separation of uranium from impurities", and I.A. Tserkovnitskaya and A.K. Charykov the paper "The relation between thorium salts with organic acids and the extraction with organic solvents". In the discussion of several problems participated: K.B. Yatsimirskiy Card 3/4

Conference on the ....

\$/063/62/007/005/001/<del>006</del> A057/A126

elements. A survey of experiments on the enthalpy of the formation of molecules MO was given by S.A. Shchukarev in the report "Gaseous oxides of the elements of the supplementary subgroups". In the paper "Thermodynamic investigation of higher chlorides and hydroxichlorides of molybdenium and tungsten", G.I. Novikov, A.V. Suvorov, R.B. Dobrotin, A.V. Tarasov, and V.K. Maksimov showed a method of calculating the enthalpy of formation of hydroxichlorides and results of thermographic studies of the systems WO2-WC16 and WO3-WC16. New information on the thermodynamics of ruthenium halogenides was given by N.I. Kolbin and A.N. Ryabov in the paper "Nonaqueous compounds of ruthenium with chlorine, bromine and iodine". Results on studies of the systems WCl6-CsCl, MoCl5-NaCl, NbOCl3-KCl, NbOCl3-NaCl, UO2-UC14 and of binary systems of lanthanide chlorides with sodium and potassium chlorides were presented in the papers by I.V. Vasil'kova, G.I. Novikova, et al. The young coworkers G.M. Loginov and Ya.V. Vasil'yev reported on magnetic susceptibility of some vanadium and titanium compounds. L.S. Lilich read the paper "Chemical potentials of the components in the solutions BeClo-HCl-HoO and Be(ClO4)2-HClO4-H20", while V.A. Latysheva made some suggestions upon properties of lanthanum compounds in solution. R.B. Dobrotin presented the paper "On the problem of electronegativity of some elements of the supplementary subgroups". A special meeting was held on physico-chemical investigations of glasses contain-

Card 2/4

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6</u>

8/063/62/007/005/001/006 A057/A126

AUTHOR:

Makarenya, A.A.

TITLE:

Conference on the chemistry of rare elements

PERIODICAL:

Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D.I.

Mendeleyeva, v. 7, no. 5, 1962, 574 - 575.

TEXT: The conference was held in Leningrad in October 1961, organized by the Leningradskoye oblastnoye pravleniye VKhO im. D.I. Mendeleyeva (Leningrad Regional Board of the All-Union Chemical Society imeni D.I. Mendeleyev) and the khimicheskiy fakul tet Leningradskogo universiteta (chemical faculty of the Leningrad University). It had the character of a scientific report of the kafedra obshchey i analiticheskoy khimil universiteta (Chairs of general and analytical chemistry of the university) to the XXII party congress. The conference wasopened by Prof. A.V. Storonkin and the first report given by Prof. S.A. Shchukarev "On the modern stage and perspectives in development of the chemistry of rare elements" pointing to the "inexhaustible" sources in the USSR for these elements. Papers of the coworkers of the chair of general chemistry, which is lead by Prof. Shchukarev, were dedicated to physico-chemical studies of compounds of the rare

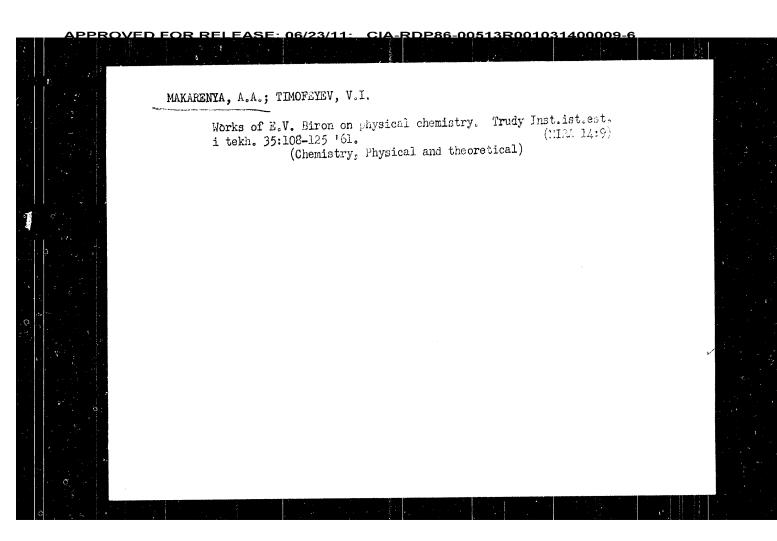
Card 1/4

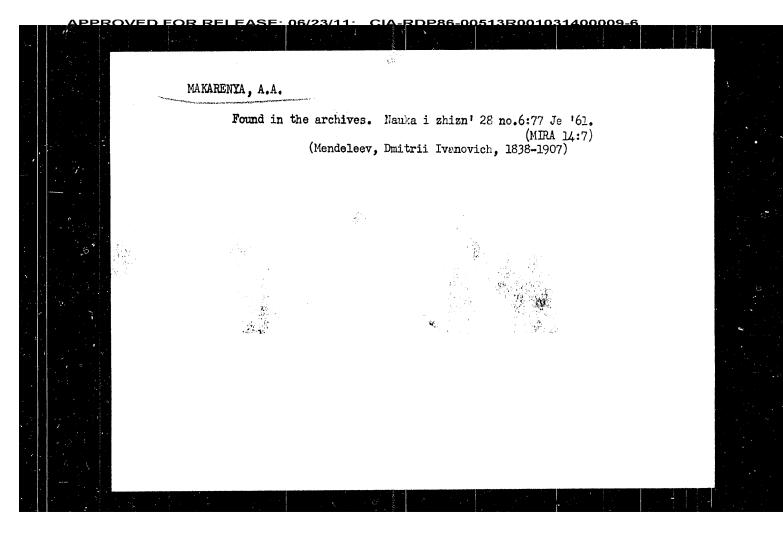
MAKARENYA, A.A.

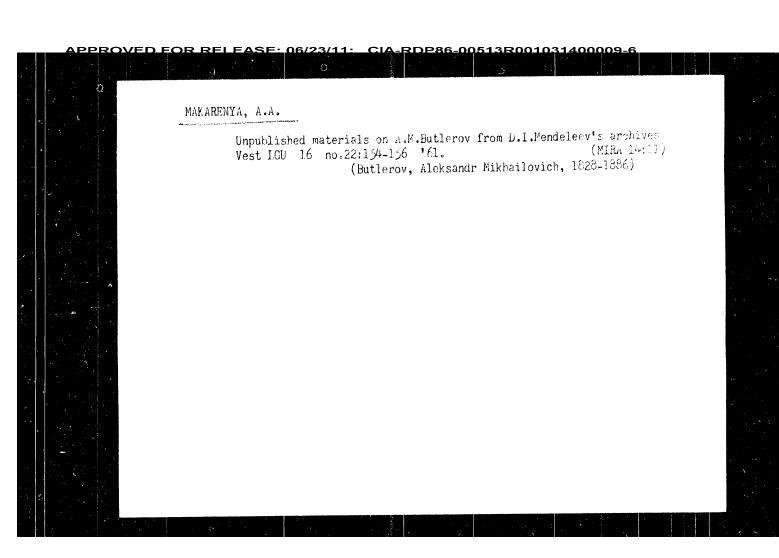
D.I.Mendeleev Museum is fifty years old. Zhur.VKHO 7 sc.2:
222-223 '62. (KIRA 15:4)

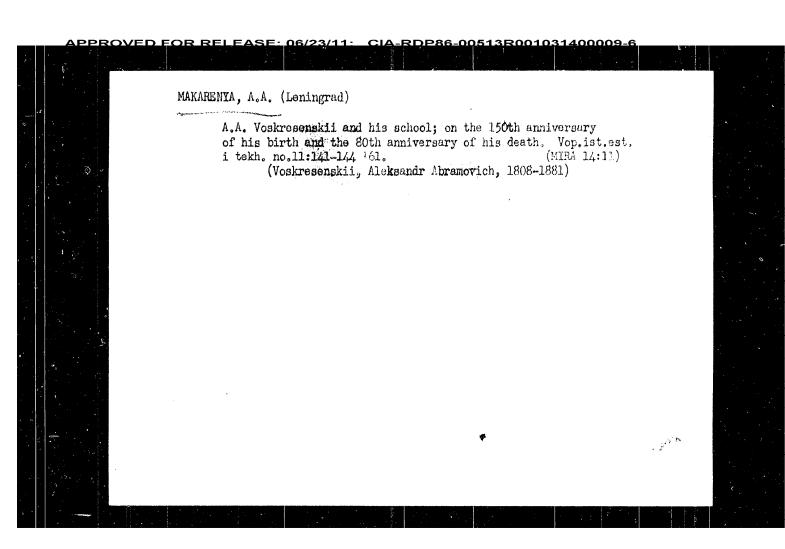
1. Direktor muzeya-arkhiva D.I.Mendeleyeva pri Leningradskom gosudarstvennom universitete.

(Mendeleev, Dmitrii Ivanovich, 1834-1907)



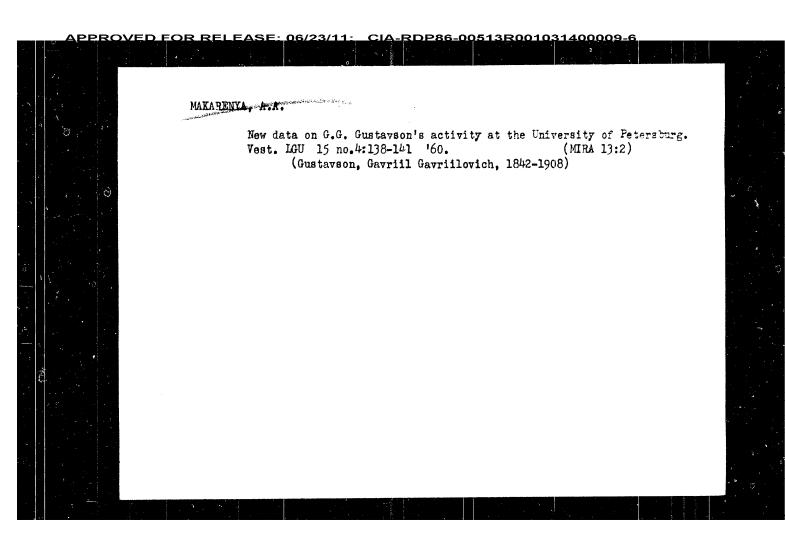






MAKARENYA, A.A. (MIRA 14:6) MAKARENYA, A.A.; SOLOV'YEV, Yu.I. From the history of the development of physical chemistry at the University of St. Fetersburg (on the fiftieth anniversary of the foundation of the physical chemistry laboratory [with summary in English]. Vest. LGU 15 no.22:82-88 '60. (MIRA 13:11) (Leningrad--Chemistry, Physical and theoretical)

SHCHUKAREV, S.A.; MAKARENYA, A.A. Bibliography of works on the periodic law. Vest. IGU 15 no.16:151-152 '60. (MIRA 13:8) (Bibliography-Periodic law)



MAKARENYA, A.A. (Leningrad)

Work of D.I. Mendeleev's colleagues in giving experimental confirmation to the periodic law (1868-1874). Vop.ist.est.i tekh. no.10:89-92

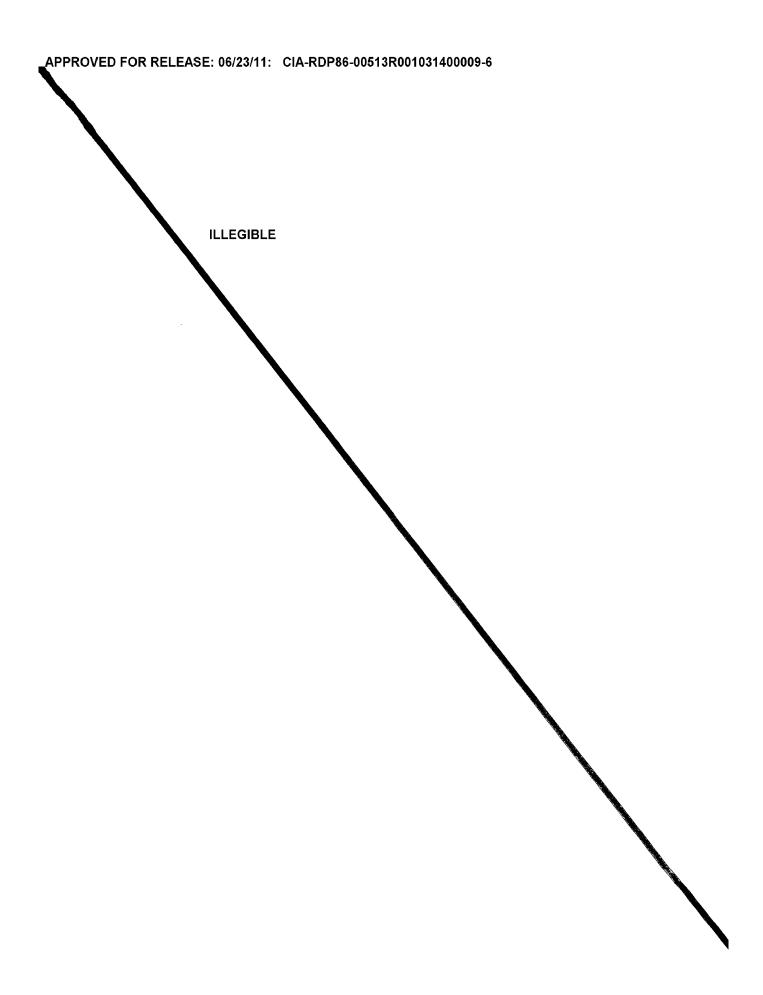
160. (MRA 14:3)

NOVIKOV, G.I.; MAKARENYA, A.A.; RYABOV, A.N.; SUVOROV, A.V.

Improved circulation method of determining the disacciation pressure. Izv. vys. ucheb. zav; khim. i khim. tekh. 3 no. 5:952-958 '60.

1. Leningradskiy gosudarstvennyy universitet. Kafedra obshchey i neorganicheskoy khimii.

(Gases--Analysis)



5(0)
AUTHORS:
Shchukarev, S. A., Doctor of Chemical Sciences, Makarenya, A. A.
(Abstracters)

TITLE:
New Edition of the Borks by D. I. Mendeleyev on the reviolation stand (Novoye izdaniye rabot D. I. Mendeleyeva po periodicheszona zahosa)

PERIODICAL:
Vestnik Akademii nauk SSSR, 1959, Nr 3, pp 141-143 (8038)

ABSTRACT:
This is a review of the reference work by D. I. Mendeleyev mentioned in the title.—There is 1 Soviet reference.

BOBROV, L.; VASILEVSKIY, V.; VLASOV, L.; DRAGUNOV, E.; KAPUSTINSKAYA, K.;
KARELIN, V.; LOSHCHILOV, G.; MAKARENYA, A.; MEDVEDEV, Yul.;
ROMAN'KOV, Yu.: SENCHENKOVA, T.; SENCHENKAYA, C., TRIFONOV, D.;
ANTOYUK, L., red.; LESHCHINSKAYA, G., tekhn. red.

[Journey into the land of the elements] Putechestvie v stranu
elementov. [By] L. Bobrov i dr. Moskva, "Molodaia gvardiia,"
1963. 366 p. (MIRA 16:10)

(Chemical elements)

HELETSKIY, V.G.; FRUDNIKOVA, E.K.; MAKARENKOVA, Ye.B.; LYAKHOVA, L.A.

Hygiene of children's eyes. Vop.okh.mat.i det. & no.3170-73 Mr

'63.

1. Iz kafedr gigiyeny i glaznykh bolezney Smolenskogo meditsinskogo
instituta i Smolenskoy gorodskoy sanitarno-epidemiologicheskoy
stantsii.

(ETE-CARE AND HYGIENE) (CHILDREN-CARE AND HYGIENE)

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ACCESSION MR: AP5003579

After resoving the soluble pattern, the film is treated with a solution of phenotformalidehyde sulfile resin washed, dried, and cured at 3000. The reverse side of
the sheet is quated with perchlorovinyl varnish, and the pattern stocked at 40-550
at a current density of 20 a/dm2 (increased after 1 hr. to 100 a/dm2) in a solufilm of 650 g/liter H-PO<sub>4</sub> and 0.5 g/liter polyvinyl shockol. The openings of
0.2-0.3 ms can be decreased to 0.05-0.1 ms by gaivanth deposition of nickel, chromium, or nickel-otherwism. This filters can be used for sodium sulfate solutions
and starch under commercial conditions. Orig. art. hast a figures.

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L 26655-05 BMT(m)/SMP(f)/EMP(t)/EMP(b) Pc-4 RMM/JD/RM
ACCURSION RM: AP5003779 S/0314/65/000/001/0034/0035 27

AUTHOR: Kharlambys, K. N. (Candidate of technical sciences); Morkboy, M. I. A. (Santinate of weeking all sciences); Daydova, I. M. (Engineer); Morkboy, M. A. (Engineer); Verbitakan, N. R. (Engineer); McEnventova, L. A. (Engineer); Verbitakan, N. F. (Engineer); McEnventova, L. A. (Engineer); Verbitakan, N. F. (Engineer); McEnventova, L. A. (Engineer); Verbitakan, N. R. (Engineer); Verbitakan, N. A. (Engineer); McEnventova, L. A. (Engineer); Verbitakan, N. A. (Engineer); McEnventova, L. A. (Engineer); Verbitakan, N. A. (Engineer); McEnventova, L. A. (Engineer); McEnventova, N. A. (Engineer); McEnventova, N. A. (Engineer); McEnventova, L. A. (Engineer); McEnventova, N. A. (Engineer); McEnvento

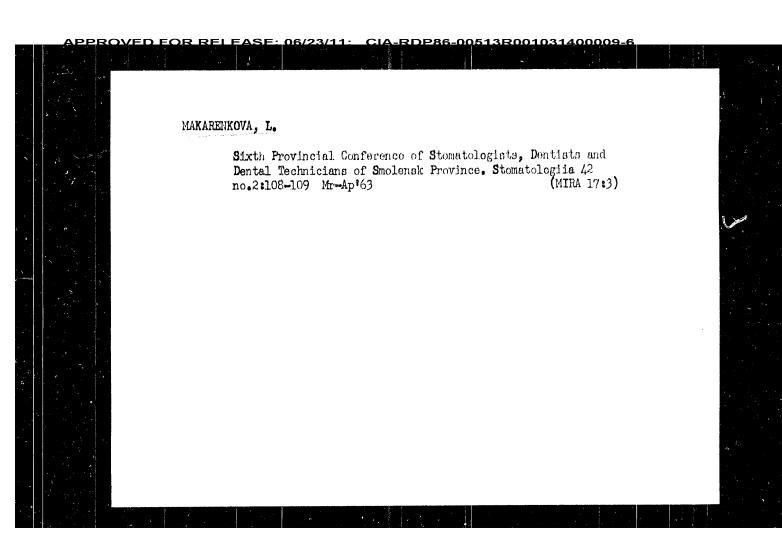
CHUMAKOV, A.F.; MAKARENKOVA, L.A. Corresion protection for retary diffusion apparatus using varnish and paint coatings. Sakh.prem.30 ne.5:25-27 My 156. 1. Nauchne-issledevatel skiy institut khimicheskikh mashin. (Corresion and anticorresives)

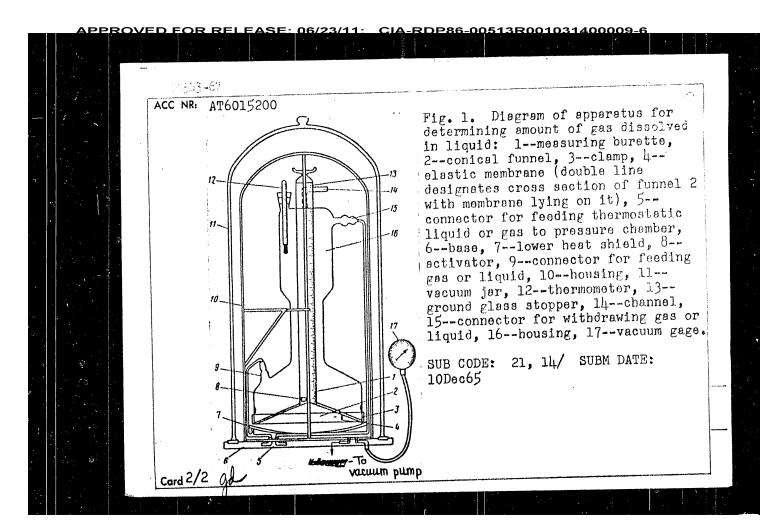
KOZIN, N.I., doktor tekhn. nauk; MAKARENKO, Ye.N., inzh. Polymorphic transformations of the individual components of the oil base of margarine. Masl.-zhir. prom. 29 no.10:11-(MIRA 16:12) 14 0 163. 1. Institut narodnogo khozyaystva imeni G.V. Plekhanova.

KHARLAMOVA, K.N., kand.tekhn.cauk; MORKHOV, M.1., kand.tekhn.nauk; DAVYDOVA, I.N., inzb.; MAKARONKOVA, L.A., inzb.; VEREITERAYA, Ye.R., inzb.

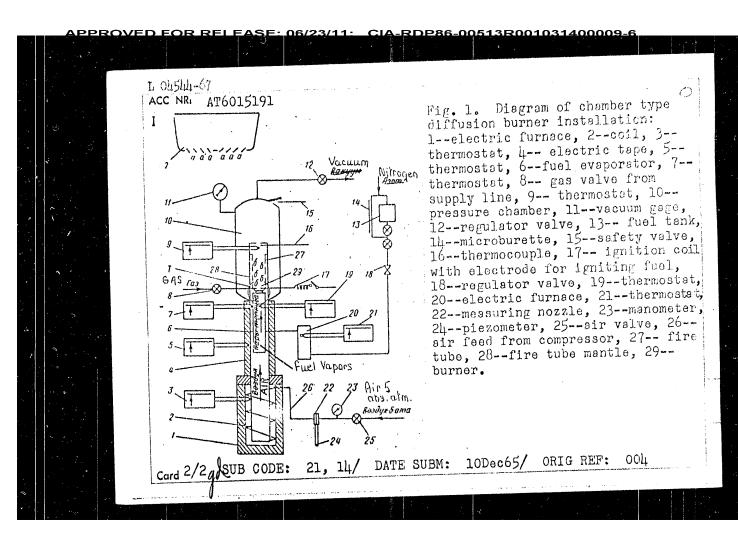
Photoelectrochemical method for manufacturing notcloth screens for filter centrifuges. Khim. i neft, mashinostr. no.113/-35

Ja '65. (MIRA 18:3)



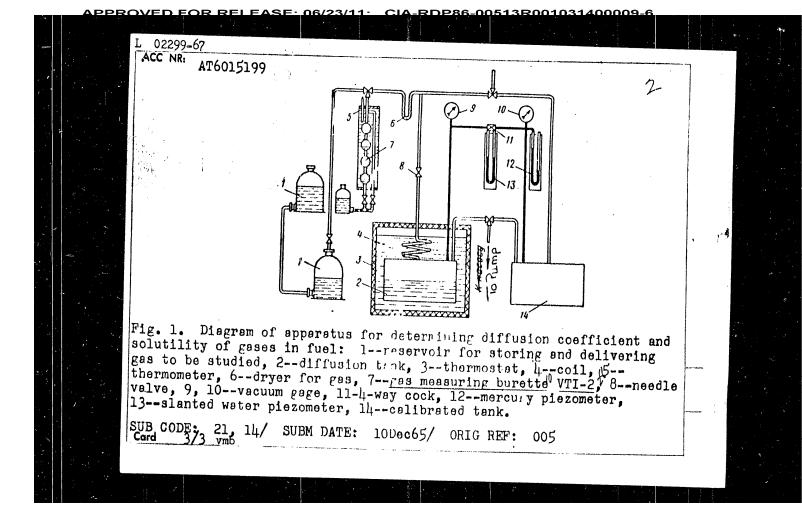


EWT(m)/T FDN/WE/GD L 04543-67 (A,N)UR/0000/66/000/000/0096/0098 SOURCE CODE: ACC NR: AT6015200 AUTHOR: Borisov, V. D.; Gogitidze, L. D.; Logvinyuk, V. P.; Mekerenkov, V. V.; Melyshev, V. V.; Penchenkov, G. M.; Yakovlevskiy, V. V. ORG: none TITLE: Apparatus for determining the amount of gas dissolved in a liquid SOURCE: Metody otsenki eksplustatsionnykh svoystv reaktivnykh topliv i smazochnykh materialov (Methods for the performance evaluation of jet propellents and lubricants). Moscow, Izd-vo Mashinostroyeniye, 1966, 96-98 TOPIC TAGS: gas analysis, gas analyzar, solubility, petroleum fuel, ABSTRACT: A simple appeartus for determining the amount of gas dissolved in a liquid was designed so that it could be used as a gas pipette for VTI, Orsat or other gas analyzers. A special feature of the apparatus (see Fig. 1) is the use of an elastic membrane to equalize the pressure between the measuring burette and the surrounding space, and measurement of the volume of liberated gases at different pressures and temperatures. A deviation of 3.5% was found in the measurement of gases separated from a hydrocarbon fuel. Water and other liquids may be used in the determinations. Orig. art. has: 1 table and 1 figure. UDC: 662,753.22:629,13.001.h Card 1/2



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

L 04544-67 EWT(m)/T FDN/WE/GD ACC NR: AT6015191 (A,N) SOURCE CODE: UR/0000/66/000/000/0018/0026 AUTHOR: Gogitidze, L. D.; Makarenkov, V. V.; Panchenkov, G. M.; Pustyrev, O. G.; Yakovlevskiy, V. V. 14 1341 ORG: none TITLE: Method of evaluating combustion characteristics of hydrocarbon fuels von a chamber type burner SOURCE: Metody otsenki ekspluatatsionnykh svoystv reaktivnykh topliv i smazochnykh materialov (Methods for the performance evaluation of jet propellants and lubricants). Moscow, Izd-vo Mashinostroyeniye, 1966, 18-26 TOPIC TAGS: petroleum fuel, combustion characteristic, combustion kinetics, combustion chamber test, gas turbine engine test ABSTRACT: The use of a small chamber type diffusion burner (see Fig. 1) for determining completeness of fuel combustion was evaluated. Total fuel consumption in the burner used, scaled down as much as possible while still simulating the combustion chamber in a gas turbine engine, was only 150-200 ml per run. Completeness of combustion was determined with an accuracy of better than 2.5%. There is qualitative agreement between these results and those obtained in an actual gas turbine engine chamber. Orig. art. has: 4 figures and 1 table. UDC: 662.753.22:629.13.001.4 Card 1/



L 02299-67

ACC NR. AT6015199

depth of the fuel layer and to calculate the total amount of dissolved gas at any time. "...experimental points (showing solubility of Cog in hydrocarbon fuel) were provided by Tikhonov, N. I., Vinogradov, Yu. V. and Morodov-Rostovsk, N. V." Orig. art. has: 6 figures and 15 equations.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400009-6

ACC NR: AT6015199 (7, N) SOURCE CODE: UR/0000/66/000/000/0087/0095

AUTHOR: Gogitidze, L. D.; Logvinyuk, V. P.; Makarenkov, V. V.; Makarenkov, V.

ABSTRACT: A simple method was worked out and equipment was designed for determining the solubility and the diffusion coefficient of a gas in liquid under nonstationary conditions. This involves direct measurement of the volume of gas dissolved in the liquid (see Fig. 1). Conditions approximate those in the wing tanks of heavy subsonic aircraft. Equations given for calculating the nonstationary solubility of gas in a liquid enable one to calculate the gas concentration according to the

Card 1/3

UDC: 662.753.22:629.13.001.4

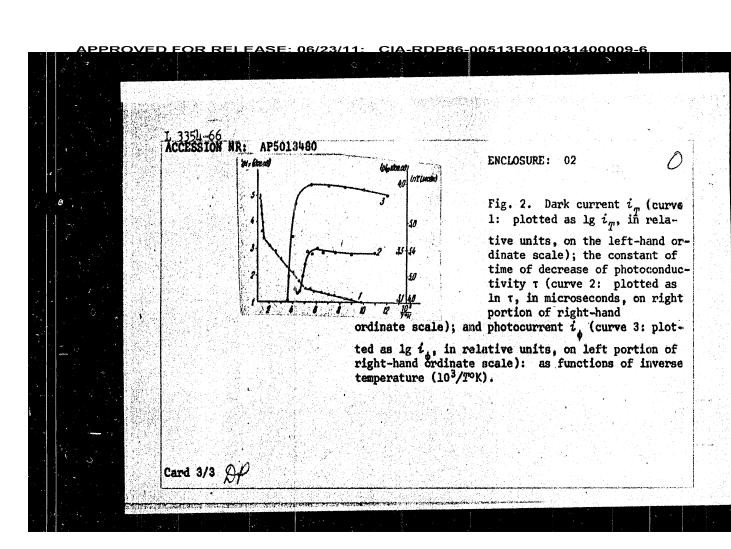
ASSOCIATION: Drohobyts'kyy pedinstytut im. I. Franko' (Drogobytskiy pedagogicheskiy institut im. I. Franko) Drogobych Pedagogical Institute)

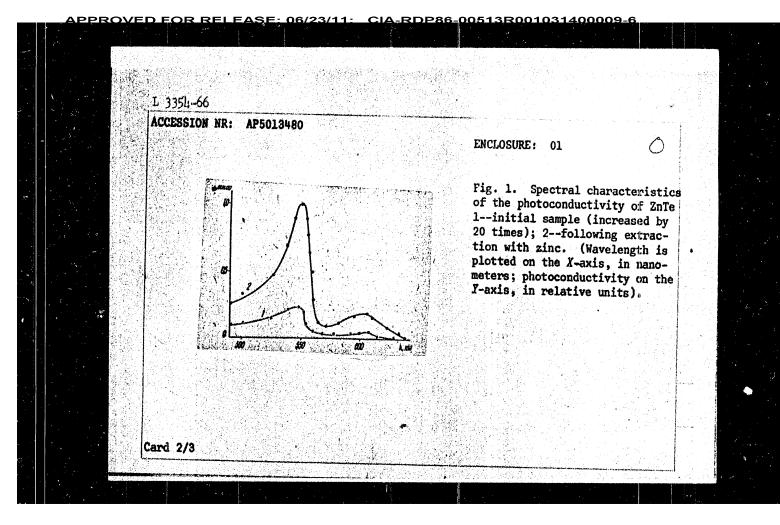
SUBMITTED: 09Mar65 ENCL: 00 SUB CODE: SS

NR REF SOV: 003 OTHER: 002

L ևևև3-66 EWT(1)/EPA(s)-2/EWT(m)/ETC/EWG(m)/EWP(t)/EWP(b) ACC NRI AP5020693 IJP(c) RDW/JD/JG UR/0185/65/010/008/0915/0917 AUTHOR: Shneyder, A. D.; Tsyutsyura, D. akarenko. TITLE: Some electrical and photoelectric properties of the HgTe-ZnTe system SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 8, 1965, 915-917 TOPIC TAGS: zinc compound, mercury compound, telluride, Hall coefficient, electric conductivity, temperature dependence, thermoelectric power ABSTRACT: The temperature dependence of the Hall coefficient (R) and the conductivity (a) of HgTe and of several solid solutions of HgTe-ZnTe with small content of ZnTe have been investigated, using samples cut out from homogeneous regions of HgTe-ZnTe nonporous castings. The carrier concentrations at room temperature varied between 6 x 1016 and 2 x 1017 cm<sup>-3</sup>. The temperature dependence of the Hall coefficients of three types of the samples is typical of hole semiconductors with large mobility ratios. The curves indicate intrinsic conductivity. The temperature dependence of the thermoelectric power indicates that at a sufficiently low temperature the Hall coefficient changes sign. The electron mobility at 78K has been determined from data on the intrinsic conductivity. A value Ro = 66000 cm<sup>2</sup>/V-sec was obtained for an ordinary sample. The width of the forbidden band increases practically linearly with increasing ZnTe content. The kinetic behavior of the photoconductivity is complex, with long-lasting components predominating. Orig. art. has: 2 figures.

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L 3354-66 EWT(m)/ETC/EWG(m)/EWF(t)/EWP(b) IJP(c) RDW/JD

ACCESSION NR: AP5013480

UR/0185/65/010/005/0568/0570

AUTHOR: Shneyder, A. D.; Makarenko, V. V.

TITLE: Some photoelectric characteristics of ZnTe

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 5, 1965, 568-570

TOPIC TAGS: photoconductivity, photosensitivity, zinc compound, optic material

ABSTRACT: The authors ran tests on the photoelectric sensitivity of ZnTe which is known to be relatively low, presumably on account of copper admixtures which cannot readily be removed. In order to reduce the dark conductivity and increase the photoelectric sensitivity, the authors prepared "pure" samples of ZnTe by heating some of the initial material in liquid zinc at 900°C. This method will reduce the amount of admixed copper to 10<sup>-14</sup>/cm<sup>3</sup>. The samples exhibited a thermal resistance of  $\rho = 10^3 - 10^5$  ohm-cm; intensive illumination reduced this figure by a factor of 50-100. Orig. art. has: 2 figures.

ASSOCIATION: Drogobyts'kyy pedinstytut (Drogobych Pedagogical Institute) SUBMITTED: 09Jan65 SUB CODE: IC, OP

ENCL: 02 NO REF SOV: 005 OTHER: 004

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